

Mr. BRYANT. Fine. All I am saying—I think it is clear what I am saying. You cannot claim somebody smoked as a matter of free choice and, at the same time, admit that they are addicted to your product, now can you?

Mr. JAMES JOHNSTON. Mr. Congressman, I'm not a litigation lawyer or expert.

Mr. BRYANT. But I would hope you are a logical thinker.

Mr. JAMES JOHNSTON. I am, I hope.

Mr. BRYANT. I think the logic leads us to that conclusion. When everybody on the panel says the same thing and, Mr. Horrigan, you took offense at our questioning a moment ago, but when everybody on the panel says the same thing and, astonishingly, says it in the same way, as you did a moment ago when you affirmed that you did not believe nicotine is addictive, it raises the question about whether or not the response was rehearsed.

Mr. Horrigan, did your lawyer tell you that you needed to affirm today without equivocation that nicotine is not addictive?

Mr. HERRIGAN. No one had to tell me anything about my opinions about addiction, sir.

Mr. BRYANT. Did this group discuss the need to state clearly in the same words as you all did, in the same words that nicotine is not addictive?

Mr. CAMPBELL. Absolutely not.

Mr. HERRIGAN. You may think that we get together and meet. That's absolutely outrageous.

Mr. BRYANT. What is outrageous?

Mr. HERRIGAN. That is outrageous for you to assume that we meet and talk about these issues. We are competitors. We're independent. We're fighting for survival in a legitimate marketplace.

Mr. BRYANT. You mean you have never collaborated—

Mr. HERRIGAN. And we all have our own opinions.

Mr. BRYANT. You have never collaborated in defending against a product liability case brought against you for making people dead and sick?

Mr. HERRIGAN. If lawsuits are brought against companies together, then the companies obviously, as a group, would protect themselves if they are brought together.

Mr. BRYANT. That is all I'm talking about, Mr. Horrigan. I would also observe, Mr. Horrigan, it is very difficult for me to find you at this table characterizing anything as outrageous after 7 apparently intelligent people have stood here and told the American people, 250 million of whom know better, that cigarettes are not addictive. What could be more ridiculous?

So if we sit up here a little skeptical of your answers in other areas, you will understand why.

Now, Mr. Johnston, the Mr. Johnston who is with R.J. Reynolds, we have spent a long time on the medical and scientific aspects of nicotine addiction today. Behind the medical and scientific jargon about self-administration and reinforcing effects are, of course, real people who are suffering real pain and serious diseases and ultimately loss of life because of their addiction to cigarettes.

I have a letter from one of these people, Mr. Pat McLaughlin from Florida. It is marked as Exhibit No. 11. I think Ms. McLaughlin's letter should be read. She writes, "I must comment

on the statement that cigarettes are not addictive. Let me tell you about my father's death from emphysema. His death was not the bad part. His life was the real horror story. My earliest childhood memories include hearing my dad's persistent and constant hacking cough, watching him continually spit up phlegm into a coffee can which he had by his side 24 hours a day."

She writes, "I also remember my dad being in the hospital once or twice each year for a lengthy stay while his lungs were being pumped of the poisons from nicotine. My most vivid memories were my dad's unforgettable words of despair. Not one day went by when he didn't say 'I know these damned cigarettes are killing me, but I can't quit.' I remember his being under the oxygen tent and begging for a cigarette."

She concludes by saying "My dad never got the chance to meet his three grandchildren and he died with a cigarette in his hand."

Were you aware, Mr. Johnston, that your cigarette caused this kind of misery for the McLaughlin family and for hundreds of thousands of families like them each year?

Mr. JAMES JOHNSTON. Mr. Congressman, I am sorry to hear about the McLaughlin family's situation. I do not believe that Mr. McLaughlin was addicted to cigarettes. My mother has diabetes. When we talked about all those other substances that aren't harmful, sugar is perhaps killing my mother. I have talked to her. I have begged her. I have pleaded with her to stay away from sugar.

In the end, she makes that choice, knowing everything she knows about the risks of diabetes, having all the encouragement from her son and her daughters. She makes that choice.

[Exhibit 11 follows:]

Exhibit 11

February 28, 1994

Tobacco Institute  
1875 Eye Street N.W. Suite 800  
Washington D.C. 20006

Dear Ms. Dawson:

I must reply regarding a statement made by you in the Fort Lauderdale Sun Sentinel on Saturday, February 26 about the FDA's authority to ban cigarettes.

I am not concerned with the FDA's decision, but I must comment on your statement that "CIGARETTES ARE NOT ADDICTIVE".

Let me tell you, Ms. Dawson, about my father's death from emphysema. His DEATH was not the bad part. His LIFE was the real horror story. My earliest childhood memories include hearing my Dad's persistent constant hacking cough, watching him continually spit up phlegm into a coffee can (which he had by his side 24 hours a day).

I also remember my Dad being in the hospital once or twice each year for a lengthy stay while his lungs were being pumped of the poisons from nicotine.

My most vivid memories were my Dad's unforgettable words of despair. Not one day went by when he didn't say "I know these damned cigarettes are killing me, but I can't quit". I remember him being under the oxygen tent begging for a cigarette.

Does this sound like a pleasurable, non-addicting hobby or a disgusting addicting disease? Do you think a person would choose this lifestyle? My Dad never got the chance to meet his three grandchildren and he died with a cigarette in his hand.

It's too late for my Dad, but please be honest, Ms. Dawson, for the sake of our young people today who still have a chance to "JUST SAY NO" to this harmful drug called nicotine, which is known to be more addictive than heroin.

Very truly yours,

Pat McLaughlin

cc: David Kessler

1901 North 31st Avenue • Hollywood, Florida 33021 • (305) 983-5039



Mr. BRYANT. I will just have to say no medical experts agree with your assessment or comparison of sugar and nicotine. None, none whatsoever. There is a stack of books that say you are wrong or that you are stating something you do not believe, one way or the other.

Do you think the Schick Clinics and the people who sell patches and all who are trying to help people escape from this addiction are operating a fraudulent enterprise?

Mr. JAMES JOHNSTON. No, Congressman, I do not. But for you to sit here and tell me that my mother's life is not at stake is wrong, as well.

Mr. BRYANT. No one in this room heard me say that. You did not hear me say that either. You are evading my question. Do you think that Schick and these people who are trying to provide people with medically-approved means of getting away from your product are running a fraudulent operation?

Mr. JAMES JOHNSTON. For some smokers, it may make a difference. The success rates, as I understand them, with stop smoking clinics and with patches and the nicotine gum and so forth is somewhere, I believe, and this is speculation, not a fact, but my understanding is around 25 percent. So for some people, it is an aid to support their decision.

Mr. BRYANT. So for some people, perhaps it is addicting. Would you agree?

Mr. JAMES JOHNSTON. Any one of those clinics will tell you when you walk in the door if you aren't committed, if you haven't really made the decision to quit, you will not quit.

Mr. BRYANT. But would you agree that for those 25 percent of the people, they are addicted to nicotine?

Mr. JAMES JOHNSTON. I'm sorry, Congressman.

Mr. BRYANT. You acknowledge 25 percent of the people are aided in quitting by those clinics. Would you agree that those people are addicted to nicotine?

Mr. JAMES JOHNSTON. No, sir. No, Congressman.

Mr. BRYANT. Then what good does a patch that puts nicotine into their body do them?

Mr. JAMES JOHNSTON. Pardon me?

Mr. BRYANT. What is the effect of the patch that gives them nicotine?

Mr. JAMES JOHNSTON. What is the—

Mr. BRYANT. What is the effect of the treatment if they are not addicted?

Mr. JAMES JOHNSTON. What is the—I'm sorry, Congressman.

Mr. BRYANT. If they are weaned from their habit with a nicotine delivery system, then how can you say that nicotine was not involved in their inability to stop smoking?

Mr. JAMES JOHNSTON. Nicotine provides pleasure. It provides enjoyment.

Mr. BRYANT. Let us move on to something else.

Mr. WAXMAN. Before you do move on, do you believe that nicotine administered through a patch is pleasurable?

Mr. JAMES JOHNSTON. I don't know. It has a mild pharmacological effect. Those products are marketed as a drug. And the reason—this is very important, Mr. Chairman. The reason that

many people do not stay with nicotine patches, which provide nicotine just like a cigarette does, is that there's something more to smoking than just nicotine. It's the ritual. It's the way we associate it after a meal or with a cup of coffee.

So to say that people taking nicotine through gum or patches—if it was only nicotine, they'd stay with it. But there is something more to smoking. There is pleasure and enjoyment out of smoking.

Mr. WAXMAN. And 400,000 people die each year. Thank you, Mr. Bryant. Mr. Kreidler?

Mr. KREIDLER. Thank you, Mr. Chairman.

Mr. WAXMAN. Mr. Hastert has arrived. Do you want to take your time now? Mr. Kreidler.

Mr. KREIDLER. Thank you, Mr. Chairman. My father said to me, he said "I just wish I had known" what he had known 10 years ago. He wished he had known at the age of 14 what he knew 10 years ago. The sad part of that was that he was telling me this as he was in a nursing home bed dying of emphysema.

I was in the State legislature at the time and after the end of the day, I'd go up and I'd spend my evenings with my father over those last few months and it was a prized time to have that kind of exchange of information with your father as he's dying.

But it was really hard because it was interrupted so frequently with his laboring coughs and his attempts to get breath. It would be hard for me to imagine that there's one of you gentlemen sitting here that have ever witnessed something like that. My father started smoking when he was 14 years of age. He quit 10 years before he died because of the diagnosis of emphysema, took every medication he possibly could on a very regimented schedule, but it's progressive. It just goes until you die. You can't get any breath.

I can't imagine there's one of you gentlemen here that could actually advocate to a loved one please take up cigarette smoking, particularly if you've ever witnessed on a very personal level somebody very close to you dying under those circumstances, which I had, unfortunately, the opportunity to do.

My dad died that way and it was very sad. A very proud man under a very sad situation.

Mr. Campbell, you said it's not addictive. It's very hard for me to sit here and hear anybody say that it's not addictive when I witnessed what it did to my father over those years and the statements that he made, which clearly indicate that it is not just addictive, it's very addictive.

How do you respond? Would you ever want a loved one to take up cigarette smoking, knowing that the outcome, particularly if it were to lead to something like emphysema, would be something that could lead to the kind of death that I had to witness with my father?

Mr. CAMPBELL. As I said, I really don't accept, from a common sense standpoint, that smoking is addictive. In terms of your own family situation, I can only feel the same kind of remorse that you reflect. But I guess what I would say is that when it comes to family members, I think of my own daughters and I would like them to take no risks.

But I accept that at some point that they're going to be taking some risks and I want them to be informed about those risks. I

think that in a lot of ways, this product and a lot of other products that Congress, Health and Human Services—

Mr. KREIDLER. Would you want them to take up cigarette smoking?

Mr. CAMPBELL. I want them to be completely informed about all the kinds of pursuits that are associated with current—

Mr. KREIDLER. As a parent, if you had the choice.

Mr. CAMPBELL. In the end, I'm going to have to accept that they will be taking risks and I won't second guess them.

Mr. KREIDLER. I've scuba dived. I was a smoke jumper for the Forest Service. I did some things that were risky behavior. If you had a choice, as a parent, would you have your daughters start cigarette smoking?

Mr. CAMPBELL. I can't make the choice for my daughter and that's all I can tell you.

Mr. KREIDLER. If you, as a parent, could make a recommendation to your daughters.

Mr. CAMPBELL. My daughter is getting recommendations all the time about a lot of things. But in the end, they'll be as informed as they can be and make their own decision.

Mr. KREIDLER. So you wouldn't give them a recommendation on cigarette smoking.

Mr. CAMPBELL. It wouldn't matter if I gave them a recommendation with the amount of information that they'll have about this and a lot of other things. I think the important thing is that our children and everyone gets as much information as possible.

Mr. KREIDLER. I think we know the answer. In all honesty, you would tell your daughters don't do it because you know enough about it and it is very risky behavior and it's something that you wouldn't want to see them do.

I, too, apprise my kids of that same concern and I can always point to my father and I said do you remember how grand-dad died, that's why you don't want to smoke.

Let's turn to another issue that has to do with some of the myths that surround nicotine. This is the claim that nicotine levels in cigarettes have gone down dramatically. The industry position is simple. It says that nicotine yields calculated by the FTC test has dropped over 60 percent in the last 10 years, demonstrating a massive reduction in nicotine.

There's just two problems with that claim. First, it's not true that the FTC nicotine yields have been dropping for the last 10 years. In fact, for the last 10 years, they've been increasing. Second and even more important, the FTC's nicotine yields are an unreliable measure of how much nicotine is consumed in smoke in a particular cigarette.

The FDA, the Surgeon General, independent experts, and even the industry's own consultant have concluded that there is virtually no relationship between the measured FTC yield and the amount of nicotine actually inhaled by smokers.

My question is this. Dr. Spears, for Lorillard, 3 weeks ago, you presented a chart to the subcommittee that, Dr. Spears, you claimed showed that nicotine levels have consistently fallen for the past 10 years. A copy of your chart, marked to emphasize the most recent decade, is Exhibit No. 16.

I believe that except for the markings that have been added, this is the same graph that you submitted to the subcommittee on March 25. Dr. Spears, is that correct?

Mr. SPEARS. Yes. This is a graph that I submitted to the hearing on March 25.

Mr. KREIDLER. According to the notation at the bottom of the graph, the bulk of this graph, including the years from 1956 to 1987, is drawn from the Surgeon General's 1989 report on smoking, which charts nicotine levels based on the FTC data. Is that correct?

Mr. SPEARS. This chart is basically a replication of a chart in the Surgeon General's report extrapolated to 1990. I don't remember exactly where the chart stopped in the Surgeon General's report.

Mr. KREIDLER. The Surgeon General's 1989 chart is Exhibit No. 17. I believe this is essentially the same as the Philip Morris chart number two. I'd like to put both charts in the record at this point, if I might, Mr. Chairman.

Mr. WAXMAN. Without objection, they will be received for the record.

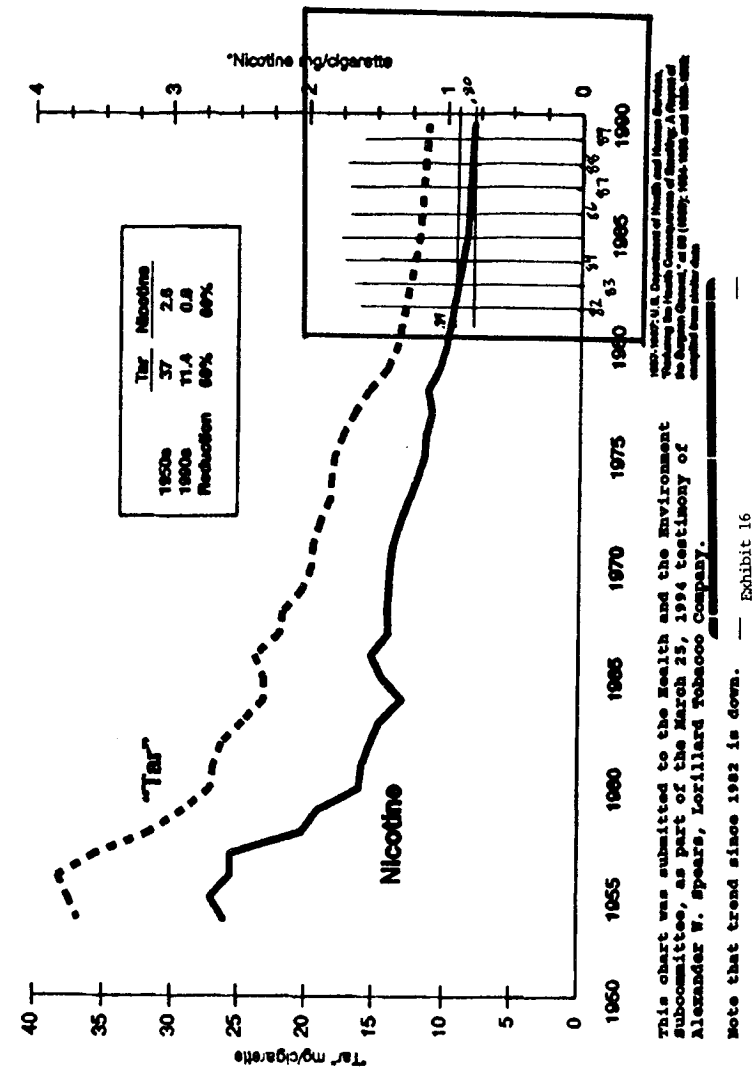
Mr. KREIDLER. Dr. Spears, in our last hearing, you used this chart to contradict FDA Commissioner David Kessler who had suggested that in recent years nicotine levels in cigarettes are going up.

Now that we have had time to look more closely at your chart and the data upon which it is based, however, we see some problems. At least over the most recent decade, the chart does not appear to reflect either the FTC data or the 1989 Surgeon General's chart upon which it is supposedly based.

I have an exhibit and poster that are taken directly from the 1989 Surgeon General's report and from the chart you submitted to the committee. The exhibit is Exhibit Number 18. It shows the major difference between your chart and that of the Surgeon General after 1982.

[Exhibits 16, 17, and 18 follow:]

**"Tar" and Nicotine Yields of U.S. Cigarettes  
Sales Weighted Average Basis, 1954-90**



Mr. KREIDLER. Your chart shows a continuing decrease in nicotine levels after 1982, but the Surgeon General's chart shows—if we could bring up Philip Morris Chart Number 2 in lieu of that Surgeon General's chart. We have the exhibit. We didn't have a poster. So the public can see the exhibits being passed out.

But the Surgeon General's chart shows—or, I should say, Philip Morris here—shows an increase in nicotine levels. For instance, the Surgeon General's chart shows a significant increase in nicotine yields in 1985. This is not reflected in your chart at all. In fact, your chart shows a decrease from 1984 to 1985.

A look at the FTC data upon which the Surgeon General's chart is based is very revealing. If you could, pull out the chart and poster showing this data for a moment. According to the FTC data, there is a clear increase in nicotine levels in 1985 and again in 1987. The increase is reflected in the Surgeon General's chart, but not in your chart.

Mr. SPEARS, is it possible for you to make a mistake in representing the Surgeon General's chart as a basis of your chart before this subcommittee?

Mr. SPEARS. I'd like to say a few things about this. Obviously, there is a lot of confusion. Let me say, number one, what I represented to you was not the very minute detail that you're now talking about, but the fact that tar and nicotine decreased through the period 1950's to the present in a parallel fashion.

Mr. KREIDLER. Dr. Spears, these are the numbers from 1982 to 1990. These are the raw data numbers. Did you look from 1982 going down through 1990—does that show a decrease or does that show an increase?

Mr. SPEARS. May I finish?

Mr. KREIDLER. Proceed.

Mr. WAXMAN. Just a minute. You're entitled to have an answer to your question.

Mr. KREIDLER. I'm curious. This is the hard data for that 10-year period right now. It's the raw data. Does that show a decrease? Your chart showed it decreasing. This is the raw data. Are those numbers showing a decrease or actually an increase? I think it's hard to say that those represent a decrease. They are, in fact, an increase.

Mr. SPEARS. It's hard to say it represents an increase.

Mr. KREIDLER. But your chart—

Mr. SPEARS. Just a minute. I am not prepared to say that these are the correct data that you're showing me. We have gone back and I have recalculated a lot of this data in view of seeing Dr. Kessler's charts, which alleged significant increases in nicotine and flat levels of tar.

Mr. KREIDLER. I would argue and put forward to you that—

Mr. SPEARS. No. What he showed—

Mr. KREIDLER. We're talking about FTC data that—this isn't something that's been manipulated by somebody else. This is FTC data. If you want to take a look at it and get confirmation, I presume that when you submitted the data that you had had a chance to review it when you presented it to the committee the first time. But this is the hard data from FTC.

Mr. SPEARS. It's not the hard data from FTC. What it is is FTC data, sales weighted by reports on the sale of the cigarettes.

Mr. KREIDLER. Which is the same data that you were using, correct?

Mr. SPEARS. And you have to do it correctly. I do not believe that Dr. Kessler's work was correct and I said this caused us to go back and look at recalculation of these figures. I cannot confirm Dr. Kessler's graphs.

Mr. KREIDLER. But you still argue at this point and you'd still submit to the committee that the nicotine levels are decreasing, specifically over this last 10 to 15-year period.

Mr. SPEARS. I did not make that as a profound statement. I made a—

Mr. KREIDLER. You submitted data that would lead us to that conclusion.

Mr. SPEARS. The statement was that nicotine follows tar from the period 1950's to 1990. I stick with that statement and I believe it is accurate. We've gone back and rechecked the calculations.

Mr. KREIDLER. You submitted it as the Surgeon General's chart.

Mr. SPEARS. Now, if you wanted to—

Mr. KREIDLER. Excuse me, Dr. Spears, but you submitted this as a Surgeon General's chart. Is it or is it not the Surgeon General's chart?

Mr. SPEARS. This chart came from the Surgeon General's report that was identified, yes.

Mr. KREIDLER. Was it presented accurately? Why does it—for the last 10-year period, why does your chart show that the levels are decreasing when, in fact, the data shows us they're increasing?

Mr. SPEARS. It looks to me like—

Mr. KREIDLER. And the Surgeon General's chart also shows that.

Mr. SPEARS. It looks to me like my chart might show a 10 percent decrease. But the data you put up there might show a zero or certainly much less than a 10 percent increase and the Reynolds picture shows that it's slightly decreasing or flat.

Mr. WAXMAN. Mr. Kreidler, your time has expired.

Mr. KREIDLER. Thank you very much, Mr. Chairman.

Mr. WAXMAN. You may want to catch that vote. The Chair will recognize himself for the next round of questioning. I have in front of me a copy of—Mr. Spears, you might want to stay there. I have a copy of a 1981 report written by Mr. Alexander W. Spears, the vice chairman of Lorillard. Without objection, it will be entered in the record as Exhibit 12.

[Testimony resumes on p. 715.]

[Exhibit 12 follows:]

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Mr. WAXMAN. This article says that nicotine levels can be increased through the blending process. Specifically, the article concludes, and I quote, "Higher nicotine levels can be achieved by decreasing oriental and the stem and tobacco sheet and increasing the burley and upper stock positions of both the flue-cured and the burley tobacco."

Mr. SPEARS, did you write this article?

Mr. SPEARS. I believe you're referring to the article that I wrote in 1981, yes.

Mr. WAXMAN. That's correct.

Mr. SPEARS. Which appeared in the Advances in Tobacco Science symposium of the 35th Tobacco Chemist Conference. Is that correct?

Mr. WAXMAN. That's the one I'm referring to.

Mr. SPEARS. I wrote that.

Mr. WAXMAN. Do you agree that cigarette makers can adjust the level of nicotine in cigarettes through the process of blending different types of tobacco?

Mr. SPEARS. Mr. Waxman, I have prepared a statement in view of your press conference yesterday and if you'll permit me, I'd like to present that statement.

Mr. WAXMAN. We'll be pleased to—

Mr. SPEARS. It deals with this subject and a couple of others. It deals with this subject.

Mr. WAXMAN. I understand it deals with this subject. We'll be pleased to receive the statement for the record. Is it a lengthy presentation?

Mr. SPEARS. No, it's not.

Mr. WAXMAN. Then, please, go ahead.

Mr. SPEARS. Thank you, Mr. Chairman and members of the subcommittee, for the opportunity to speak. I will try to be brief, but I must take this opportunity to clarify some issues that Dr. Kessler introduced at the March 25 hearing and that you, Mr. Chairman, raised at a press conference yesterday.

I have four specific points that I'd like to address. I stated in my earlier testimony that nicotine follows tar and used the latest FTC tar and nicotine yields to prove this point. The correlation coefficient between tar and smoke nicotine data for all commercial brands measured was 0.975. That has not changed and I have not heard any challenge to it. This, of course, includes ultra-low tar brands.

I also showed the changes in the sales weighted tar and nicotine values of the commercial brands from the 1950's to 1990. Reductions in tar were followed by reductions in nicotine of similar percentages. Dr. Kessler showed charts at the March 25 hearing indicating that sales weighted smoke nicotine has been increasing since 1982 and that tar has undergone little or no change.

My staff cannot duplicate the data used to construct Dr. Kessler's charts and I stand by my prior charts and testimony on this subject. Smoke nicotine follows tar to a very high degree among the commercial brands.

Second point, nicotine concentration in tobacco should not be confused with nicotine smoke yields as measured by the FTC method. Ultra-low tar cigarettes are also ultra-low smoke nicotine ciga-

rettes. The nicotine concentration in the tobacco is not correlated to FTC tar and smoke nicotine yields. That is differences in tobacco nicotine concentrations are not correlated to smoke nicotine yields in the cigarette.

The filter, the filter-tipped ventilation, density of the tobacco are the principal factors that control the nicotine smoke yield.

Mr. Chairman, you told the press and the public yesterday that a 1981 publication of mine, which was just referred to, reported higher concentrations of nicotine in the tobacco of very low tar cigarettes, meant that smokers of these cigarettes receive high yields of nicotine. This is not true.

The ultra-low brand cigarette was defined in my paper as a 0 to 6 milligram tar segment. The Federal Trade Commission nicotine yield of this segment are also the lowest among commercial brands. Smoke nicotine follows tar.

Third, the cigarette tobacco blends are formulated to try to achieve taste acceptance, brand distinction and preference within the smoker franchise. The fact that nicotine concentrations vary among the compounds or components used to formulate the blend has been discussed in the Surgeon General's report and many other publication besides my 1981 paper.

The fact that commercial cigarette blends vary in nicotine concentration should not be treated as a revelation by this committee. The practice of using tobacco blend differences to establish unique taste characteristics have given rise to all Turkish cigarettes, the American blended cigarette, the black tobacco cigarette of France and so forth.

This centuries old practice is well known and cannot be construed as manipulation of nicotine.

For the purpose of this committee or those of Dr. Kessler, the suggestion that my 1981 article provides evidence of nicotine manipulation, as stated in your press conference, Mr. Chairman, appears to result from a total misunderstanding of the data, design and manufacture of cigarettes from an agricultural commodity in varying compositions.

I've also looked at your staff report on that 1981 article and I would like to address two specific things there. One, they indicated that this article suggested that there was ongoing research in the industry to raise the nicotine level of tobacco so that nicotine would be higher than tar.

That was work that came out of, I think, the Tobacco Working Group of the National Cancer Institute, was being conducted by the USDA and the land grant universities in the tobacco growing States. It had nothing to do with the manufacturers or this industry. Inference that it was the manufacturers by the staff report is totally incorrect.

I'll stop there, if you have other questions.

[The prepared statement of Mr. Spears follows:]

STATEMENT OF ALEXANDER W. SPEARS, VICE CHAIRMAN AND CHIEF OPERATING OFFICER, LORILLARD TOBACCO COMPANY

Mr. Waxman and members of the subcommittee, thank you for the opportunity to speak. I will try to be brief, but I must take this opportunity to clarify some issues that Dr. Kessler introduced at the March 25 hearing and that you, Mr. Chair-

man, raised at a press conference yesterday. I have four specific points that will be addressed.

No. 1, I stated in my earlier testimony that nicotine follows tar, and used the latest FTC tar and nicotine yields to prove this point. The correlation coefficient between the tar and smoke nicotine data for all commercial brands measured was 0.975. This, of course, includes ultra low tar brands. I also showed the changes in sales-weighted tar and smoke nicotine values of commercial brands from the 1950's to 1990. Reductions in tar were followed by reductions in nicotine of similar percentages. Dr. Kessler showed charts at the March 25 hearing indicating that sales-weighted smoke nicotine has been increasing since 1982, and that tar has undergone little or no change. My staff cannot duplicate the data used to construct Dr. Kessler's charts, and I stand by my prior charts and testimony on this subject. Smoke nicotine follows tar to a very high degree among the commercial brands.

No. 2, Nicotine concentration in tobacco should not be confused with nicotine smoke yields as measured by the FTC method. Ultra low tar cigarettes are also ultra low smoke nicotine cigarettes. The nicotine concentration in the tobacco is not correlated to FTC tar and smoke nicotine yields because the amount of tobacco in the cigarette, the filter and filter tip ventilation are the principle factors that control nicotine smoke yield. Mr. Chairman, you told the press and the public yesterday that a 1981 publication of mine which reported higher concentrations of nicotine in the tobacco of very low tar cigarettes meant that smokers of these cigarettes received high yields of nicotine. This is not true. The ultra low tar cigarette brand segment of market was defined by my paper as the 0.6 tar segment. The FTC nicotine yields of this segment are also the lowest among commercial brands. Smoke nicotine follows tar.

No. 3, Cigarette tobacco blends are formulated to try to achieve taste acceptance, brand distinction, and preference within the smoker franchise. The fact that nicotine concentrations vary among the components used to formulate the blend has been discussed in a Surgeon General report and many other publications besides my 1981 paper. The fact that commercial cigarette blends vary in nicotine concentration should not be treated as a revelation by this committee. The practice of using tobacco blend differences to establish unique taste characteristics have given rise to the all Turkish cigarette, the American blended cigarettes, the black tobacco cigarette of France, etc. This centuries-old practice is well-known and cannot be construed as manipulation of nicotine for the purposes of this committee of those of Dr. Kessler. The suggestion that my 1981 article provides evidence of nicotine manipulation as stated in your press conference, Mr. Chairman, appears to result from a total misunderstanding of the data, design, and manufacture of cigarettes from an agricultural commodity with varying composition.

No. 4, The last point relates to your staff's analysis of my 1981 paper. They indicated that this paper reported that the industry was doing research to increase the nicotine level, while keeping the tar level constant. The reference to this in the paper relates to an idea that came from the Tobacco Working Group of the NCI and others. It pertains to research toward the development of new varieties of tobacco at the USDA experiment stations and the universities in the tobacco growing States. It was not research being conducted by the manufacturers and cannot be related to manipulation of nicotine by the manufacturers.

Mr. WAXMAN. Thank you. Without objection, I'm going to start my time from the period at which you've ended. Dr. Spears, your article said that increased nicotine is in the lowest yield cigarette. It's indisputable that there is more nicotine in the cigarette. There's more nicotine in the smoke, as well. Furthermore, you're relying on FTC numbers which, I would submit, are not meaningful because they don't relate to what the smoker actually takes in.

I have a line of questions on that point and I want to get to that in a minute.

Mr. SPEARS. May I say something? I disagree with what you just said, that it's indisputable that the concentration of nicotine in tobacco relates to what's in the smoke. The question is does the concentration of nicotine in tobacco relate—differences in that concentration relate to what's in the smoke.



Mr. WAXMAN. If you raise the level of nicotine in the cigarette, all other things being equal, it would raise the level of nicotine in the smoke. Do you disagree with that statement?

Mr. SPEARS. If all other things were equal, but they are not.

Mr. WAXMAN. We'll get into that in a minute. You wrote in this article that higher nicotine levels can be achieved by decreasing oriental and the stem and tobacco sheet and increasing the burley and upper stock positions of both the flue-cured and the burley tobacco.

Do you agree that cigarette makers can adjust the level of nicotine in cigarettes through the process of blending different types of tobacco?

Mr. SPEARS. People will get different nicotine concentrations in the tobacco depending upon the specific blend, yes.

Mr. WAXMAN. Now, I want to ask if everyone on this panel agrees. Do each of you agree that you can adjust the level of nicotine in your cigarettes through the blending process? Mr. Johnston?

Mr. DONALD JOHNSTON. Yes, Mr. Chairman.

Mr. WAXMAN. Mr. Sandefur?

Mr. SANDEFUR. Depending on the availability of the blend constituents, yes, you can.

Mr. WAXMAN. Mr. Horrigan?

Mr. HERRIGAN. The same response as Mr. Sandefur.

Mr. WAXMAN. Mr. Taddeo, do you agree?

Mr. TADDEO. In smokeless tobacco products, you can vary it.

Mr. WAXMAN. Mr. Johnston?

Mr. JAMES JOHNSTON. Yes, Mr. Chairman.

Mr. WAXMAN. You agree. And Mr. Campbell?

Mr. CAMPBELL. Just a moment, please. No. It's important to remember that the concentration can be changed, but it is the absolute level in low delivery cigarettes that is all important. We're talking about—

Mr. WAXMAN. Do you agree that you can adjust the level of nicotine in your cigarettes through the blending process?

Mr. CAMPBELL. Yes.

Mr. SPEARS. Mr. Chairman, would you say concentration and not nicotine level? Then I can agree with you.

Mr. WAXMAN. You have each told us that you can have the potential to adjust the nicotine levels—

Mr. SPEARS. Concentration.

Mr. WAXMAN. Concentration or levels—through blending. What I'd like to know is whether you have actually exercised this control. Mr. Johnston, let me begin with you, whether you've actually exercised this control.

Mr. JAMES JOHNSTON. Mr. Chairman, we do not design our cigarettes with any nicotine levels in the specifications. We design our cigarettes, this is very important, for tar levels, usually within a band. It might be a light cigarette within that band or sometimes a specific tar level objective and the nicotine flows from there, because filtration takes—

Mr. WAXMAN. You have the ability to control it. Your answer is you have controlled it, but for other reasons. Is that a fair statement of your answer?

Mr. JAMES JOHNSTON. We design our products and we control for tar, as we are required to do.

Mr. WAXMAN. Last night, one of your officials, Mr. Suber, appeared on CNN. Mr. Suber was asked whether your company manipulates the level of nicotine, and this is what he said. "In order to deliver to the consumer a product that he wants, a consistent level of nicotine, we have to blend the tobacco's accordingly. So we do control it."

Mr. Johnston, do you agree with Mr. Suber? He says that in order to deliver the consumer a consistent level of nicotine, which is what the consumers want, you do control nicotine levels. What is your answer? Do you agree or not?

Mr. JAMES JOHNSTON. As I said both in the written statement and in my oral statement—

Mr. WAXMAN. No. I want to know whether you are disagreeing or agreeing with Mr. Suber's statement as I just read it to you.

Mr. JAMES JOHNSTON. I'm telling you what I agree with.

Mr. WAXMAN. No. I want a yes or no. Do you agree or do you disagree?

Mr. JAMES JOHNSTON. Please restate the question.

Mr. WAXMAN. I'm sorry. What did you answer?

Mr. JAMES JOHNSTON. Please restate the question.

Mr. WAXMAN. Do you agree or disagree with Mr. Suber's statement that I quoted for you from his interview on CNN, where he said "In order to deliver to the consumer a product that he wants, a consistent level of nicotine, we have to blend the tobaccos accordingly. So we do control it."

Mr. JAMES JOHNSTON. I disagree with that wording of the statement, yes.

Mr. WAXMAN. You disagree with him.

Mr. JAMES JOHNSTON. Yes.

Mr. WAXMAN. I'd like to ask the other members of the panel. Well, staff is raising a good point. Mr. Suber works for you, doesn't he?

Mr. JAMES JOHNSTON. Yes, he does.

Mr. WAXMAN. And he was representing your company on television last night as a spokesman.

Mr. JAMES JOHNSTON. Yes, sir, he was.

Mr. WAXMAN. How could he make a statement with which you disagree on such a fundamental point?

Mr. JAMES JOHNSTON. It's not a fundamental point. It's a choice of how he phrased it. What I've tried to communicate, Mr. Chairman, is what we do design and manufacture our cigarettes for is to tar specifications. As I said in my statement, we monitor and measure both tar and nicotine and they come right in line, and we are required—

Mr. WAXMAN. Well, Mr. Suber says that the smoker wants a consistent level of nicotine. Nicotine, not tar. You can't assure a consistent level of nicotine without controlling the level of nicotine, can you?

Mr. JAMES JOHNSTON. That's what I disagree with, Mr. Chairman. Our smokers want a consistent product. They want the Winston that they smoke today to be like the Winston they smoke tomorrow, like the Winston they smoke in California or the Winston



they smoke in Oklahoma or the Winston they smoke in North Carolina.

Further, our tar and nicotine numbers are in every advertisement and we have tried to—

Mr. WAXMAN. You're going through all your protestations, but you have a spokesman from your company who made a statement. You're saying he was incorrect in his statement. Now, we know that—we know from Dr. Spears that if you adjust the level of tar, it might not change—it generally changes the level of nicotine, but that can be changed through blending. You don't disagree with that, do you?

Mr. JAMES JOHNSTON. I don't disagree with that whatsoever.

Mr. WAXMAN. You do disagree, however, with your own spokesman from your company that says that the consumer wants this level consistent and, therefore, they blend to reach that consistent level.

Mr. JAMES JOHNSTON. Mr. Chairman, I don't even know the context of his remarks. I might look at them in context and come back and tell you I precisely agree with him. It can be one sentence that I wasn't there to hear. I'm telling you that as you read it to me, Mr. Chairman, I do disagree with it.

Our customers, our smokers want Winston to taste like Winston yesterday, today and tomorrow, as any consumer products manufacturer would do, and we want to comply with the law. Our advertisement has our tar and nicotine level in it. We file it with the FTC and we are obligated to do our best to deliver precisely that.

Mr. WAXMAN. Let me read to you precisely what Mr. Suber, the representative from RJR Tobacco Company, said. "In order to deliver to the consumer a product that he wants, a consistent level of nicotine, we have to blend the tobaccos accordingly. So we do control it. We have advertising that states what the level of nicotine is and the level of tar. Therefore, we have to control this. Otherwise, we're in violation of advertising regulations."

Do you agree with that statement now that you've—

Mr. JAMES JOHNSTON. I agree with everything that is in that quote with the exception that the consumer wants a consistent level of nicotine. In fact, what happens in a natural agricultural product is that there are crop-to-crop variations. There are rounding. We're dealing with such small numbers here that in our lowest tar products, a one-tenth milligram rounding, and we are required by the FTC to round, can change the number by 50 percent and actually you've only changed the number by 1 percent.

Mr. WAXMAN. When you control the level for tar, does nicotine go along with it?

Mr. JAMES JOHNSTON. In a rough proportion. It is not a direct proportion because filters are slightly more effective at reducing particulate matter than they are vapor matter. Nicotine comes through in both forms. More of it is filtered out in the particulate form, but less in the vapor form. So it's not—

Mr. WAXMAN. So if you're trying to get a consistent level of nicotine and they don't go precisely together, you have to adjust nicotine levels separately, don't you?

Mr. JAMES JOHNSTON. No. No.

Mr. WAXMAN. You haven't told Mr. Suber that.

Mr. JAMES JOHNSTON. Mr. Suber—

Mr. WAXMAN. Dr. Spears indicated in his statement—his article, rather, that I released yesterday, that through a blending process, the nicotine levels can be changed. You've indicated that you agree with that.

Mr. JAMES JOHNSTON. I know of no such article.

Mr. WAXMAN. Let's start again. You know Mr. Suber, don't you?

Mr. JAMES JOHNSTON. I do, indeed.

Mr. WAXMAN. Yesterday, there was a discussion of an article issued by Dr. Spears. You have not been made aware of that article.

Mr. JAMES JOHNSTON. You said Dr. Suber's article.

Mr. WAXMAN. Dr. Spears.

Mr. JAMES JOHNSTON. I said there is no such—

Mr. WAXMAN. You're aware that Dr. Spears wrote an article in 1981.

Mr. JAMES JOHNSTON. Now that we have the correct person, yes, Mr. Chairman, I am aware of that.

Mr. WAXMAN. Now, he indicated that through a blending process of tobaccos, the nicotine concentrations or levels can be changed and often are separately adjusted from the tar levels. Do you do that?

Mr. JAMES JOHNSTON. Repeat the question.

Mr. SPEARS. That statement is not found in my article that you can separately adjust tar and nicotine.

Mr. WAXMAN. Let me read to you your article. "Based on these trends, one would conclude that the lowest tar segment is composed of cigarettes utilizing a tobacco blend which is significantly higher in nicotine. Although one cannot conclude that this has been achieved solely by the selection of tobacco, it does indicate a trend toward the use of tobacco with higher nicotine levels." That's page 22.

Mr. SPEARS. Yes, sir. But you said that this indicates you could separate tar from nicotine.

Mr. WAXMAN. That you can adjust separately the tar and nicotine.

Mr. SPEARS. It does not indicate that.

Mr. WAXMAN. We're talking about the lowest tar cigarettes.

Mr. SPEARS. I understand.

Mr. WAXMAN. Does your article say or not say that those can also be the highest nicotine concentrations?

Mr. SPEARS. In concentration in the tobacco, but not in the nicotine yield of the cigarette smoke.

Mr. WAXMAN. And the—

Mr. SPEARS. Let's not confuse it any further, if I may.

Mr. WAXMAN. When you say the nicotine content in the smoke is separate from the cigarette, that seems to me a very strange notion.

Mr. SPEARS. I'm trying.

Mr. WAXMAN. If you're going by the FTC—

Mr. SPEARS. Let me explain it to you.

Mr. WAXMAN. No. I'm going to get into that whole question, but I want to do it in an orderly way. We're going to get to that. Let me just say that's a very strange notion and we're going to examine that more carefully.

It defies anybody's understanding of a concentration of a higher level of nicotine in a cigarette. It may or may not be reflected in the smoke. It could be different in the FTC numbers as opposed to the concentration in the cigarette. And both of those can be different than what the smoker, in fact, inhales. Is that correct?

Mr. SPEARS. Let's start fundamentally. Understand that if you have the concentration, you must also know the amount of tobacco in the cigarette in order to determine how much nicotine is in the tobacco column of the cigarette. The paper does not discuss the tobacco weight levels in these very low tar cigarettes, low nicotine cigarettes, versus the others that I talk about.

So the starting premise that you can relate directly concentration to what is in the smoke is incorrect. Further, what is in the smoke is modified by the construction of the cigarette, the filter, the air tip ventilation and so forth. These are the important determinants of what the nicotine and tar will be.

The differences between the blend concentrations in that paper are totally insignificant in terms of what ends up in the smoke.

Mr. WAXMAN. I have an article that I'm going to have distributed to you. It's Exhibit 21. It's an article by Dr. Neal Benowitz, M.D., and others, "Smokers of Low Yield Cigarettes Do Not Consume Less Nicotine" is the title. He shows in his graph—wait a minute.

This article is from the New England Journal of Medicine and without objection, it will be made part of the record as Exhibit No. 21.

[Exhibit 21 follows:]

— EXHIBIT 21

# SMOKERS OF LOW-YIELD CIGARETTES DO NOT CONSUME LESS NICOTINE

NEAL L. BENOWITZ, M.D., SHARON M. HALL, Ph.D., RONALD I. HERMING, Ph.D., FREYTON JACOB III, Ph.D., REESE T. JONES, M.D., AND ABDEL-LATIF OSMAN, M.D.

**Abstract.** Advertisements suggest that smokers of cigarettes low in nicotine are exposed to less nicotine and tar. Nicotine yields are measured with smoking machines, but machines do not smoke cigarettes as people do. We therefore measured the actual nicotine content of commercial cigarettes with different nicotine and tar yields as determined with smoking machines, and also measured actual nicotine intake as indicated by blood concentrations of nicotine metabolite, cotinine, in 272 subjects smoking various brands of cigarettes.

We found that low-yield cigarette tobacco did not con-

tain less nicotine; in fact, the nicotine concentration in tobacco inversely correlated ( $r = -0.53$ ,  $P < 0.05$ ) with the concentration measured by smoking machines. Blood cotinine concentrations correlated with the number of cigarettes smoked per day but not with the nicotine yield measured by smoking machines. Only 3.8 to 5.0 per cent of total variance in blood cotinine was contributed by nicotine yield.

We conclude that smokers of low-nicotine cigarettes do not consume less nicotine. (N Engl J Med 1983; 309:139-42.)

TOBACCO advertisements claim that low-yield cigarettes "have" and deliver less tar and nicotine than higher-yield brands. Many physicians advise patients who cannot stop smoking to switch to low-tar, low-nicotine cigarettes, believing that they are safer. However, the figures for nicotine and tar determined by the smoking machines used by U.S. Federal Trade Commission (FTC) and cited by cigarette manufacturers in advertisements are misleading. The FTC figures do not reflect what is actually taken into the lungs of the cigarette smoker.

When measurements of cigarette nicotine and tar are determined by a smoking machine, a syringe draws 35-ml puffs each minute until a set length of cigarette is burned.<sup>1</sup> Cigarettes can have low yields in smoking-machine assays for several reasons. The tobacco may be lower in nicotine and may generate less tar. The use of ventilated filters or porous cigarette holders may result in dilution of the tobacco smoke. Filters that burn faster may reduce the time in which a cigarette burns; faster burning means that fewer puffs are taken by the machine to burn a given amount of tobacco. Kozlowski et al. have pointed out that the

use of ventilated filters and more rapid burning times can explain much of the reduced yield of currently manufactured cigarettes.<sup>2,3</sup> The ventilation characteristics of the filter as well as the number of puffs taken before a cigarette is discarded can be controlled to a substantial degree by the way in which the cigarette is held and smoked. Many smokers will alter their smoking behavior, changing the number of cigarettes smoked, the method of puffing, and the depth of inhaling the smoke, to maintain a desired level of nicotine intake.<sup>4,5</sup> For all these reasons, we questioned whether or not smokers of low-yield cigarettes truly consume less nicotine.

We addressed two questions: What is in the cigarette tobacco — that is, does the tobacco of low-yield cigarettes contain less nicotine? And do the FTC figures predict the actual nicotine intake of smokers? We measured blood concentrations of cotinine as an index of nicotine consumption. Cotinine is the major metabolite of nicotine and persists in the body for a much longer period than nicotine,<sup>6</sup> with a half-life averaging 20 hours (unpublished data). Because of the long half-life, cotinine blood concentrations vary relatively little throughout a day of smoking and thus are a reasonably consistent measure of nicotine exposure.

## METHODS

The nicotine content of tobacco from 15 popular brands of cigarettes was measured. Estimates of nicotine delivered by machine ranged from 0.05 to 1.5 mg. Cigarettes were cut to the butt lengths

From the Clinical Pharmacology Unit of the Medical Service, San Francisco General Hospital Medical Center, and the Langley Porter Psychiatric Institute and Department of Medicine, University of California, San Francisco. Address requests to Dr. Benowitz at San Francisco General Hospital and Medical Center, Bldg. 30, 5th Floor, 1001 Potrero Ave., San Francisco, CA 94110. Supported in part by grants (DA-01696, DA-02277, DA-02338, DA-00065, DA-00053) from the National Institute on Drug Abuse.

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Mr. WAXMAN. Are you familiar with this article?

Mr. SPEARS. Yes, I am.

Mr. WAXMAN. He says that measured nicotine per cigarette denotes total amount of nicotine and the length of cigarette tobacco rod smoked in the standard FTC smoking machine assay, and he went through 15 popular commercial cigarette brands were assayed. What he shows in this graph is that the nicotine content of cigarettes, even if it were a low tar cigarette, can be the same level as in a non-low tar cigarette.

Mr. SPEARS. You have introduced another subject, which is how do people smoke cigarettes. I haven't read this article very recently, but, please, it should be obvious that if people smoke more or less cigarettes number-wise, this will change the amount of nicotine that they receive.

So the first question is are we standardizing the number of cigarettes that this consumer takes in. Number two, people smoke cigarettes in different ways. There's no question about that. Puff it more frequently, you will get more than if you puff it less frequently. But if you standardize all of these things, I believe that the FTC numbers represent, as fairly as they can be represented, the yield of cigarettes.

Mr. WAXMAN. Dr. Spears, I'm going to move on. I'm going to let you have this article to look at and we'll get back to it later. Let me just submit to you that Dr. Benowitz is indicating that the nicotine levels of low tar cigarettes are as high in others and we'll examine what it means. I think we need to go into that in some detail, what the smoker ingests as opposed to the concentration in the tobacco and whether that's a meaningful distinction or not.

Mr. Bliley.

Mr. BLILEY. Thank you, Mr. Chairman. The first thing, I might, in this series, run a little long, but since you went considerably beyond the 10 minutes, I hope you'll be considerate.

First, I'd like to demand that any documents that this subcommittee has requested be subject to strict confidentiality procedures by the subcommittee and its staff in the receipt, review and use of the materials which have been requested by all subcommittee members.

There are obvious proprietary concerns and others that we request that these procedures be strictly followed.

Mr. WAXMAN. Mr. Bliley, when we get these documents and there's a request for confidentiality, we will review that with the members of the subcommittee. But I'm certainly not going to agree that everything is going to be kept confidential because the tobacco industry wants to keep it confidential.

We have had too many things that have been kept out of the public view and I'm not going to agree that everything they submit to Congress can never be in the public view again. So I will not agree to that proposition, but we can discuss it when the time arises.

Mr. BLILEY. Thank you, Mr. Chairman. Mr. Johnston, as I understand it, the question of the manufacturers' intent is very important in order to determine whether or not the nicotine in cigarettes, the caffeine in coffee or the alcohol in wine is a drug under Federal law. This is confusing to me because I know caffeine helps me stay

awake, but when it's added to soda, it's not a drug. But when it's added to No-Doz, it is a drug.

Can you explain this to me?

Mr. JAMES JOHNSTON. Mr. Congressman, our—

Mr. BLILEY. Turn your mike on.

Mr. JAMES JOHNSTON. Yes, sir. My common sense understanding is the same as yours, that No-Doz is a drug because of the manufacturer's intent. But this is really a technical and legal question and I would like Mr. Cooper, our outside counsel, to respond to that question, sir.

Mr. COOPER. Mr. Bliley, the law here doesn't necessarily follow common sense, but it does have its own logic. In the definition of the term "drug" in the Food, Drug and Cosmetic Act, there are two branches of the definition that employ the concept of intended use.

One is intended use in the diagnosis, cure, mitigation, treatment or prevention of disease. That's not the definition that Dr. Kessler invoked and I don't think it's the one that's particularly relevant here.

The other branch is intended to effect the structure or function of the body, and that branch of the definition has an explicit exemption for foods. Now, the intended use of a product, in almost all cases, is determined by the claims and representations made by the manufacturer of the product in connection with its distribution.

Thus, if I put out a product and claim that it will keep you awake, that brings the product within the second branch that I referred to because I am claiming that the product will, indeed, have an effect on the function of the body. It will keep you awake when otherwise you might be drowsy or fall asleep.

So if I put caffeine in such a product and I make that claim and caffeine is the active ingredient that makes the claim true, then the caffeine is what is making that product a drug, along with the claim.

If, however, I put caffeine in a cola beverage and I don't make such a claim, even though the caffeine may be having the same effect, it doesn't make the product a drug, at least as the law has been currently understood.

Mr. BLILEY. Thank you. Mr. Johnston, I heard the industry say that it doesn't want kids to smoke. Is that true?

Mr. JAMES JOHNSTON. Yes, Mr. Congressman. That is correct.

Mr. BLILEY. What is your company doing about the serious problem of under-age smoking?

Mr. JAMES JOHNSTON. It is a serious issue for parents and for the society. I would like to put it in brief perspective, if I may. David, the chart, the government chart on under-age smoking, please.

Great progress has been made in this society of reducing under-age smoking. We'll have a chart up in a moment. It is important that we as a company do something about it. I want to mention just two of the programs we have.

What the science, social science, and what parents know and what children know is the driving force in an under-age person starting to smoke is peer pressure. The next most important issue is whether an older brother or sister smoke. Those are the most powerful driving forces. We have a program that deals with the

peer pressure issue. It was developed by Lifetime Learning Systems, an educational development company.

We have that program in 10,000 schools in the United States, helping 3 million children a year avoid falling into peer pressure. We use folks like Will Smith, the Fresh Prince who does public service announcements on this issue. We have a program to enforce restrictions on sales to minors. Our company and our industry helped bring the legal age for smoking up to age 18 in something like 18 States.

We've gone out to retailers. We have 25,000 retailers today co-operating with our Support the Law program, asking for ID's, training clerks to check for ID's. Getting access out of kids' hands is the way to go about it. Most kids don't get their cigarettes in a store. They swipe them from their older brother or sister or parents. I would strongly urge parents to keep their cigarettes away from kids.

We also use actor Danny Glover in that program and as of this year, it is a cooperative effort with the National Jaycees, who have taken this on to help.

Mr. BLILEY. How much, as a company, do you spend on that program?

Mr. JAMES JOHNSTON. Mr. Congressman, I don't recall the price, the exact—

Mr. BLILEY. Will you submit it for the record?

Mr. JAMES JOHNSTON. It's millions of dollars per year. Is it enough? I don't know if it's enough. As we find these programs work, we try to extend them. The more they work, the more we're willing to spend.

Mr. BLILEY. Mr. Campbell, do you have any idea how much Philip Morris spends on it?

Mr. CAMPBELL. I don't know, as well. But it is, again, millions of dollars. Our combined efforts are combined through the Tobacco Institute. You're talking about a substantial amount. As Jim said, we're never quite sure that we're doing enough because we do not want young people to smoke. We're working very closely with our customers, the National Association of Convenience Stores, and the instrumental, which is a logical place for kids to go to get cigarettes.

They are very, very strict about their It's the Law and we're working very closely with them, as well.

Mr. JAMES JOHNSTON. Mr. Congressman, if I might add, the charge that's always hurled at the industry is you have to go out and recruit these new smokers, you just have to. And the answer is that would be the stupidest thing we can do. I have a huge opportunity. The opportunity to grow my company is by taking Mr. Campbell's smokers away from him and switching them to my brands and Mr. Tisch's and so forth. There are 30 million smokers who don't smoke R.J. Reynolds brands.

That's my opportunity. They're already smoking. If I can provide better products and I can communicate that to them through advertising, that's my business. So every time a kid lights up a cigarette, we get blamed and we know we get blamed for it, but it would be stupid because the objective of this is to ban advertising.

Without advertising, I can't go take Mr. Campbell's smokers away from him and bring them over to my brands.

Mr. BLILEY. Mr. Johnston, clear up another question for me. Thirty patents held by the tobacco industry were presented here by Dr. Kessler. Many of the companies have stated publicly that they are not using these patents. In its written comments, your company stated that it doesn't use such technology commercially.

Why do you patent all these things if you don't use them?

Mr. JAMES JOHNSTON. Mr. Congressman, that's a good question. I've been asking that myself. Of our 600-plus patents, about 20 percent or less are actually in use. As I understand it, we can patent a technology or an idea, but having created an original idea doesn't mean it's commercially feasible.

In many of the patents we have today, there is a technology which, according to U.S. patent law, can be patented and the researcher can feel good about it, but it doesn't have commercial application.

Mr. BLILEY. I would like to ask each of you are you using any of the patents that Dr. Kessler mentioned in his testimony?

Mr. CAMPBELL. Yes, Mr. Bliley, I am. I'm using the patents that relate to the reduction of nicotine through my de-nicotization process. I am using no other patents.

Mr. BLILEY. Mr. Johnston?

Mr. JAMES JOHNSTON. No, we are not. But this raises a very important issue, Mr. Congressman. There wouldn't be anything wrong if we did use those patents. There have been calls from governments, from scientists all over the world, including the United States, for the industry to provide lower tar cigarettes while maintaining nicotine yields, the theory behind that being that people will—that tar is the risk factor here, that people will smoke fewer cigarettes.

Our company is being actively encouraged outside the United States to produce those products, and look what's happening in this room today.

Mr. BLILEY. Mr. Taddeo?

Mr. TADDEO. What is the question, Mr. Bliley?

Mr. BLILEY. Does your company use any of the patents described by Dr. Kessler in his testimony, to your knowledge?

Mr. TADDEO. No. We didn't have any of those patents.

Mr. TISCH. No, sir. We do not use any of those patents.

Mr. BLILEY. Mr. Horrigan?

Mr. HERRIGAN. Nor does Liggett.

Mr. BLILEY. Mr. Sandefur?

Mr. SANDEFUR. No, sir, we don't.

Mr. BLILEY. Mr. Johnston?

Mr. DONALD JOHNSTON. No, sir.

Mr. BLILEY. Thank you. Mr. Johnston, what do you think the consequences would be if Congress or the FDA simply said cigarettes may no longer be sold?

Mr. JAMES JOHNSTON. Congressman Bliley, that is the question we've been avoiding all morning. We hear these strong feelings about the dangerousness of this product. We hear strong feelings about the character and motives of the people at this table and the

2.3 million people engaged in this industry. We hear about addiction and the threats.

If cigarettes are too dangerous to be sold and they are addictive, then ban them. But let me tell you what the consequence of banning them is. Some people will quit. Some people, no matter what, will obey the law. Many will not. Many will not.

And people will get their cigarettes from people selling them out of the trunks of cars, made who knows where, of who knows what, and sold to my kids and yours and everybody else's, because criminals don't care who they sell to.

My colleagues and I, the 10,000 people in Reynolds Tobacco, we will go find other jobs somewhere where we cannot be accused of all these things.

Mr. BLILEY. Mr. Johnston, I want to be absolutely certain of this, because there has been a lot of interest in this subject and at least one of your competitors has sued ABC over it. Once and for all, does your company spike its cigarettes with nicotine?

Mr. JAMES JOHNSTON. No, Mr. Congressman. We do not spike our products with nicotine.

Mr. BLILEY. Mr. Campbell?

Mr. CAMPBELL. Mr. Bliley, we do not spike our cigarettes and we have sued the ABC Company for its accusing us of doing so.

Mr. BLILEY. Mr. Tisch? Mr. Taddeo, you don't have cigarettes.

Mr. TISCH. No, sir. We do not spike our cigarettes with nicotine.

Mr. BLILEY. Mr. Horrigan?

Mr. HERRIGAN. At Liggett, we do not spike our cigarettes with nicotine.

Mr. BLILEY. Mr. Sandefur?

Mr. SANDEFUR. We do not add nicotine to our cigarettes, no, sir.

Mr. BLILEY. Mr. Johnston?

Mr. DONALD JOHNSTON. We do not spike our cigarettes at all.

Mr. BLILEY. Thank you. Thank you, Mr. Chairman, for your indulgence.

Mr. WAXMAN. Thank you, Mr. Bliley. Mr. Synar.

Mr. SYNAR. Thank you, Mr. Chairman. Mr. Johnston, 1,147 people die each day because of cigarettes. And with those deaths, there is need to replenish the customer base. It is your claim that you do not target children to replenish that base. Is that correct?

Mr. JAMES JOHNSTON. There is no need to—

Mr. SYNAR. Is that correct?

Mr. JAMES JOHNSTON [continuing]. Approach that base and, no, we do not market to children and will not.

Mr. SYNAR. Thank you, Mr. Johnston. In deciding to launch your Joe Camel campaign, and I'd ask the staff to put the advertisement up, according to FTC documents, your company sponsored focus groups studies to determine the preferences of your likely customers. By 1987, your sales of our product among young people had been declining because your product's image was an older person's cigarette.

In fact, at the time, your market share among 18 to 34-year-olds was on the decline. When your campaign began in 1988, Mr. Johnston, the focus group data confirmed that "Smooth Moves" campaign and its later revisions had greater appeal among younger age segment, 18 to 20, than the older segment of 18 to 34.

Now, the American Medical Association found that since 1987, Mr. Johnston, the Joe Camel campaign has, for under 18 year old smokers, increased from 0.5 percent share to 32.8 percent. The study concluded that the 32 percent market increase was worth \$476 million to R.J. Reynolds. That's a remarkable coincidence, isn't it?

Mr. JAMES JOHNSTON. Mr. Congressman, those numbers are false. Now, I want to be very clear. We do not survey anyone under the age of 18. So I cannot provide you with R.J. Reynolds' data—

Mr. SYNAR. It is your position that the American Medical Association study is false.

Mr. JAMES JOHNSTON. Absolutely.

Mr. SYNAR. Thank you.

Mr. JAMES JOHNSTON. No question about it.

Mr. SYNAR. Thank you, Mr. Johnston.

Mr. JAMES JOHNSTON. I rely on the U.S. Government for those numbers and—

Mr. SYNAR. Mr. Johnston, thank you.

Mr. JAMES JOHNSTON [continuing]. The U.S. Government disagrees with the—

Mr. SYNAR. R.J. Reynolds spokeswoman Mora Payne Ellison told the Washington Post Magazine, Mr. Johnston, the following. "We don't do research among young smokers because we don't think young people should smoke." Yet, in December of 1991, again, the American Medical Association found that 91 percent of the children age 3 through 6 could match Joe with a Camel cigarette, which means, Mr. Johnston, that Joe Camel was as well known as Mickey Mouse.

Do you still maintain that Joe Camel cartoons are not targeted toward children?

Mr. JAMES JOHNSTON. Congressman Synar, when—

Mr. SYNAR. It's a simple question, Mr. Johnston. Do you contend—you do contend that Joe Camel is not targeted toward children.

Mr. JAMES JOHNSTON. Clearly and absolutely.

Mr. SYNAR. All right.

Mr. JAMES JOHNSTON. But I can explain—

Mr. SYNAR. Mr. Johnston, I would ask you to submit to this subcommittee all the documents and other materials produced in connection with the Joe Camel advertising campaign from your company and your advertising firms since its inception, including internal memos, reports, presentations of any kind, story boards, results of focus groups and marketing surveys, and any material within that description. Will you provide that for the subcommittee?

Mr. JAMES JOHNSTON. Absolutely. We have provided 60,000 pages of documents already to the U.S. Government. To help minimize any environmental impact, I can direct you to where those documents are already supplied.

Mr. SYNAR. Mr. Campbell, has Philip Morris done any research of any kind on the Joe Camel advertising campaign and its effectiveness?

Mr. CAMPBELL. I'm not acquainted with anything specifically.

Mr. SYNAR. Have any of the other companies seated at the table done any research with respect to the impact of the Joe Camel campaign? Mr. Horrigan?

Mr. HARRIGAN. No, sir.

Mr. SYNAR. Thank you. Now, Mr. Johnston, in answer to a previous question, you stated that one of the goals of advertising and promotion was to get the smokers from your competitors that are sitting at the table; in other words, to get people to switch brands.

Mr. JAMES JOHNSTON. That's the only goal and—

Mr. SYNAR. And I find that fascinating since we know from the records that, combined, you all spend about \$4.6 billion a year advertising and promoting your product. There are 50 million smokers. We know that only 5 percent of all smokers switch, which means that's 2.5 million people per year. So you're spending, by our calculations, roughly \$1,840 per person to get them to switch.

Now, can you explain to me a 1989 advertisement, which I have right here, that you later withdrew, if switching is the only reason you have? You have here "fool-proof dating advice" that starts with "Number one, never date a woman named Dave." And it continues. How to impress someone on the beach. "One, run to the water, grab someone, drag her back to the shore and act as if you're saving her from drowning. The more she kicks and screams, the better."

Is that an advertisement to get people to switch or to rape? Mr. Johnston, you withdrew this. Is that not correct?

[The advertisement follows:]

Mr. JAMES JOHNSTON. That ad ran once. That is not an ad that represents what I want our company or any of our brands to represent. I wrote a letter to Congress at that time, and I quote, "I have carefully reviewed the situation and have concluded that this ad should never have run."

I can also say that it would not have run had I been running the company at that time. I had come to the company after it ran. I apologize. It was offensive. It was stupid. We do make mistakes and, Mr. Congressman, we—

Mr. SYNAR. I take that as a sincere apology.

Mr. JAMES JOHNSTON. Absolutely.

Mr. SYNAR. Because, Mr. Johnston, of that sincerity, I have to tell you that your advertisement campaign, which is demonstrated here and across this country in many mediums, is some of the most cynical, explosive, perverse advertising we have ever seen in this country. It has one purpose, whether you will agree to that or not, and that is to attract children.

Now, I'm not satisfied with your answers, but I do know because you have the opportunity as the chief of your company to make the decision to pull that ad so that there will be no doubt that you're trying to attract children, will you pull that ad and that advertising campaign so that we can eliminate the attraction that this ad clearly does to children? Will you do that?

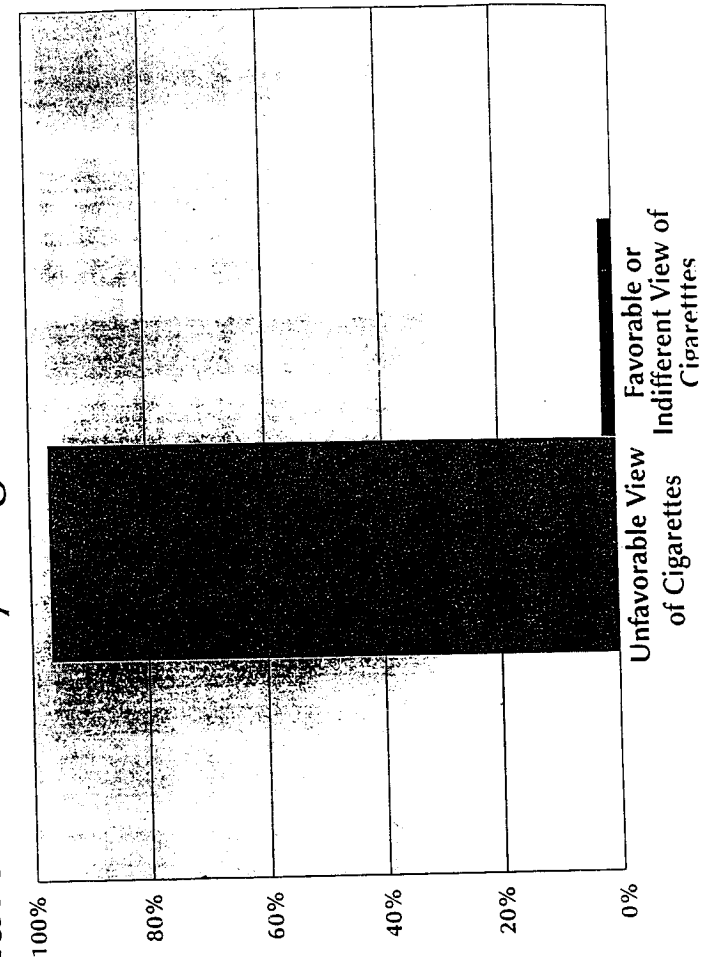
Mr. JAMES JOHNSTON. I will repeat for the record if I thought that campaign caused any young people to begin smoking, I would pull it in a heartbeat. We have taken this issue very seriously, very responsibly. We have gone out and replicated that research through the Roper Organization, much larger sample bases. The sample bases that were used in that, generally, the American Medical Association work you wouldn't accept for political polling purposes. They were too small.

Here is what we found. Teenagers who associate Joe Camel with cigarettes and who may like Joe Camel have uniformly negative views of smoking. I might like Snoopy the dog, but I don't like Met Life insurance. They might like Joe Camel, but here are the results and I'd like them submitted for the record.

Mr. WAXMAN. They will be.

[The following information was furnished:]

## Teens Who Associate Joe Camel with Cigarettes Have Uniformly Negative Views of Smoking





- The Roper study measured logo recognition, product identification, attitudes towards various products, and sources of awareness among 1,117 young people ages 10 - 17.
- Joe Camel was one of the least recognized of nine major advertising symbols.
- Seventy-three percent of the respondents demonstrated unaided awareness of Joe Camel, which was significantly below the awareness level of the top seven logos (90 - 99 percent).
- Virtually no respondent identified "Smooth Character" as the slogan of the Joe Camel Campaign.
- Among those who had seen or heard of Joe Camel (aided and unaided), 95 percent of the 10 - 17 year olds identified Joe Camel as a logo for cigarettes. Among these youths, however, only three percent thought smoking was acceptable.

Mr. SYNAR. Mr. Campbell—I'm sorry, Mr. Johnston. I have limited time. I'd like to go to Mr. Campbell. The American Medical Association has found that the initiation rates increased rapidly in girls under 17 as a result of the Virginia Slims ads. In 1973, the initiation rate for girls under 17 increased 110 percent over 1967's rates.

I have behind me a poster. In that poster, it says, right here, "Hey, if you think female bonding is all about hair spray and nail glue, you're obviously stuck in the past." Can you tell me who this ad was pointed to?

Mr. CAMPBELL. That's to attract women smokers over the age of 20, 25, something like that. Those women are all over 25 in that ad. It's to attract some of my competitors' business.

Mr. SYNAR. So you don't think any little girls looking at that thinking that they can be successful and attractive, sexually attractive, would never think that that ad might be pointed towards them.

Mr. CAMPBELL. We have no evidence of that, Congressman Synar.

Mr. SYNAR. All right. Mr. Taddeo, I haven't been talking to you today, but I want to. You've testified that U.S. Tobacco does not employ a graduation schedule to move oral tobacco users from a lower to a higher nicotine level.

Mr. TADDEO. Right.

Mr. SYNAR. In the spring 1985 edition of Up to Snuff—this is what you send to college student sales representatives. Your Executive Vice President, Jack Africk, said "Skool Bandits is an introductory product and then we look toward establishing a normal graduation product," as you can see. We then have the ad in front of us to your left with respect to Copenhagen, where it says "Sooner or later, it's Copenhagen."

What does that mean, "Sooner or later, it's Copenhagen?"

Mr. TADDEO. That was a competitive ad; that out of all the tobacco products we compete against, that finally you'll try Copenhagen and hopefully prefer that.

Mr. SYNAR. So it is your contention that you do not use the graduation system that I just described.

Mr. TADDEO. We absolutely have never used the graduation system as you described and there's a couple reasons why it's impossible to do. But one reason is that each of our cans contains loose tobacco. There is not a uniform portion of tobacco in each can.

A dip of tobacco would consist of different weights and different measures for each person consuming it.

Mr. SYNAR. All right. You have stated that U.S. Tobacco does not conduct its own research, but you have admitted that you funded a Penn State study on the effect of different levels of nicotine. For the record, what other studies have you funded?

Mr. TADDEO. There is a list of studies that we fund through the Smokeless Tobacco Research Council. I don't know the number of them.

Mr. SYNAR. Will you provide that for the record?

Mr. TADDEO. Yes, we will.

Mr. SYNAR. And make them, also, public?

Mr. TADDEO. Yes, we will.

Mr. SYNAR. Thank you very much. Now, you, on page 10 of your testimony, attack Dr. Connolly, a Massachusetts public health official who has testified before this committee. You say he has an alternative motive.

Mr. Taddeo, how much do you get paid by U.S. Tobacco every year?

Mr. TADDEO. I have a salary of \$400,000.

Mr. SYNAR. Your salary as Executive Vice President of the tobacco parent company is \$400,000.

Mr. TADDEO. That's my salary, yes.

Mr. SYNAR. We're not able to find out what else you're paid. Would you like to volunteer what other things are in your incentive package?

Mr. TADDEO. My bonus last year was a little over \$ million.

Mr. SYNAR. So your salary last year was \$1.4 million approximately, correct?

Mr. TADDEO. No. The salary was \$400,000. The total compensation was a little over \$1.4 million.

Mr. SYNAR. Also, we have learned that you hold 167,200 shares of U.S. Tobacco Corporation stock, which closed yesterday worth about \$4 million. Is that correct?

Mr. TADDEO. I still owe some money on those shares, yes.

Mr. SYNAR. Would you say your annual salary of \$6 million alternative motive may be just as strong of an ulterior motive as Dr. Connolly's?

Mr. TADDEO. I don't know what the question is.

Mr. SYNAR. All right. Mr. Taddeo, a North Carolina study found that long-term users of oral snuff were 50 times more likely to develop mouth cancer than non-users. More than 40 percent of the patients are dead within 5 years of diagnosis. I have behind me—I'm going to put it on the chart—a photograph of mouth cancer resulting from moist snuff and chewing tobacco.

Do you still deny that oral tobacco causes mouth cancer?

Mr. TADDEO. Oral tobacco has not been established as a cause of oral cancer.

Mr. SYNAR. Thank you. All right. Ms. Brenda Dawson, the Vice President of the Tobacco Institute, has stated on many public occasions that the tobacco companies have never tried to stop any efforts to keep cigarettes from minors.

Mr. Campbell, you have maintained that the tobacco industry wants to enact strict measures banning cigarette sales to minors. I think you went through a number of questions with Mr. Bliley concerning this.

First of all, we have with us here today a petition for a ballot initiative paid for Philip Morris in California, to try to counteract some of the stricter local smoking restrictions in California.

I also have with me a State-to-State analysis of current State legislative trends, where it says that in 1994, the Tobacco Institute has initiated a major push to seek enactment of its own model bill on cigarette sales, and they list a number of States.

My question is how can you contend that you have done nothing to try to keep laws from being enacted to enforce against minors when you issue these types of petitions that would override and preempt stricter city and county smoking restrictions?

Mr. CAMPBELL. Congressman Synar, I think if you investigate more closely, you'll find that the tobacco industry and our company has very actively supported in States that don't have 18-year age limits, that we very aggressively supported that.

Mr. SYNAR. All right. Let's talk about how aggressively you have enforced it. It is your official company position, is it not or is it, regarding withholding a product from retailers who sell cigarettes to minors? Do you or do you not withhold cigarette sales to retailers that have been found in violation of selling to minors?

Mr. CAMPBELL. I don't know of cases in that regard, but I don't know that we have the right to do—

Mr. SYNAR. Is it your policy that where you find—you stated earlier that you work with a thousand retailers nationwide in order to enforce against sales to minors. Is it your official or unofficial policy to—

Mr. CAMPBELL. If we have proven egregious abuse of these cigarette minors laws, we would not supply those stores.

Mr. SYNAR. In the past year, how many retailers has your company stopped selling the product to because you've learned a retailer was selling to kids under 18?

Mr. CAMPBELL. We have learned of no one doing so. There's very few prosecutions brought in that regard, but that doesn't mean that we wouldn't be responsive to any suggestions you have in that regard, Congressman Synar.

Mr. SYNAR. So you're telling me that you have not found a violation anywhere in the country, is that correct?

Mr. CAMPBELL. They have not been brought to my attention, I can say that.

Mr. SYNAR. I'd like to conclude my round by infusing a little bit of reality from my own State of Oklahoma. I received on the 15th of March of this year a letter from a young lady named Laura Sandefur. I don't think she's related to you, Mr. Sandefur. She may be. "Dear Congressman, my civics class just saw a movie about your days, what it consists of. I enjoyed watching it. I think of you working hard." I had to give my self some advertising here.

"The purpose of this letter is to try and help me know what I can do with this problem we have. Of about 25 people that ride my bus, about 15 of them smoke. I'm in the eighth grade and I think it's totally wrong. To make matters worse, just recently my mom and I walked into Quick Trip and saw a bunch of cigarettes sitting on the shelf and a sign that said 'Free, take one.' By advertising those cigarettes as free they tell kids of all ages that it's OK to smoke. I think that's totally wrong. Would you help me solve this problem and let me know what I can do."

Does that offend you that free samples are available at Quick Trips across this country where children can walk in as they're purchasing candy and grab one?

Mr. JAMES JOHNSTON. I don't believe that to be true. We do not do that. We do not support that.

[The following letters were submitted:]